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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,647	02/19/2004	Jung-Kwon Heo	1317.1014CIPDD1	3587

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EXAMINER	
DEBELIE, MITIKU W	
ART UNIT	**PAPER NUMBER**
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/780,647	HEO, JUNG-KWON	
	Examiner	Art Unit	
	Mitiku Debelie	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

TTQ 9/13/07

4)☒ Claim(s) ~~1 - 6~~ 7-10 is/are pending in the application.

4a) Of the above claim(s) ~~1 - 6, 11 - 64~~ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7 - 10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/19/2004, 09/10/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 09/10/2004 and 02/19/2004 have been considered by the examiner.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 7 – 10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 8 of U.S. Patent No. 6,222,983. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claim 7	Claim 1 of Patent No. 6,222,983
An apparatus for playing a DVD-Audio disk, wherein the DVD-Audio disk includes a data zone to store data to be reproduced by the apparatus and an information zone to store information on said data to be reproduced, said information zone includes directories of a video title set (VIDEO_TS) and an audio title set (AUDIO_TS), wherein said AUDIO_TS directory includes information on an audio manager (AMG) having information on audio titles, wherein said data zone includes said audio titles each having audio title set information (ATSI) followed by a plurality of contiguous audio objects (AOBs), said ATSI includes a plurality of audio stream attributes each having an audio coding mode, a first, second or third quantization bit number corresponding to the data to	A method for playing a DVD-Audio disk, wherein the DVD-Audio disk includes a data zone to store data to be reproduced by the apparatus and an information zone to store information on said data to be reproduced, said information zone includes directories of a video title set (VIDEO_TS) and an audio title set (AUDIO_TS), wherein said AUDIO_TS directory includes information on an audio manager (AMG) having information on audio titles, wherein said data zone includes said audio titles each having audio title set information (ATSI) followed by a plurality of contiguous audio objects (AOBs), said ATSI includes a plurality of audio stream attributes each having an audio coding mode, a first, second or third quantization bit number corresponding to the data to be reproduced, a first,

be reproduced, a first, second, third, fourth, fifth or sixth sampling frequency corresponding to the data to be reproduced, and decoding algorithm information relating to a number of audio channels of the data to be reproduced, and each of said AOBs includes a plurality of audio packs recorded with audio data corresponding to the decoding algorithm stored in the audio stream attribute, said apparatus comprising: a data receiver to receive said audio data retrieved from the DVD-Audio disk; a controller to generate an audio control signal including said audio coding mode, the one of said first through sixth sampling frequencies, the number of audio channels, and the one of said first through third quantization bit numbers based upon information on said audio data-~ said Audio_TS has effective data, and stopping a playing operation of said	second, third, fourth, fifth or sixth sampling frequency corresponding to the data to be reproduced, and decoding algorithm information relating to a number of audio channels of the data to be reproduced, and each of said AOBs includes a plurality of audio packs recorded with audio data corresponding to the decoding algorithm stored in the audio stream attribute, said method comprising the steps of: locating the AMG when the AUDIO_TS directory includes effective data; checking out other information of said DVD-Audio disk from the information of the AMG; reading position data of one of said audio titles selected according to position information of the AMG upon receiving a command for reproducing

apparatus if said Audio TS does not have effective data; an audio decoder to decode said audio data, to multi-channel mix, sampling-frequency convert and requantize said decoded audio signal according to said audio control signal, to generate output decoded audio data; and an audio output circuit to convert said output decoded audio data into an analog audio signal.	said one of said audio titles; and setting an audio decoder to carry out an algorithm for reproducing said one of said audio titles by reading the audio stream attribute of the corresponding ATSI-MAT.

TC 9/13/07

Claim 7 of the instant application is ~~so~~ broad that it encompasses ~~reads on~~ claim 1 of the corresponding.

Regarding claim 8, the limitation "a stream selector to select one of a plurality of audio streams which form said audio data according to said audio coding mode" reads on the limitation "reading position data of one of said audio titles selected according to position information of the AMG upon receiving a command for reproducing said one of said audio titles" of claim 1 of the corresponding application.

The limitation "a coding data decoding circuit to decode said selected audio stream if said selected audio stream is a compression coded audio stream using a corresponding extension algorithm and to sample frequency convert, multichannel downmix and requantize said decoded audio data according to said audio control signal" reads on the limitation "setting an audio decoder to carry out an algorithm for reproducing said one of said audio titles by reading the audio stream attribute of the corresponding ATSI-MAT" of claim 1 of the corresponding application. Both limitations offer varying description of the same component.

The corresponding patent does not teach the linear PCM decoding circuit. However, building and using PCM circuit is old and well-known routine in the art to use. Official notice is taken.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a PCM decoding circuit in order to receive and decode PCM modulated signals.

Regarding claim 9, claim 9 recites, "An apparatus for playing a DVD-Audio disk and a DVD-Video disk, wherein said DVD-Audio disk includes a data zone to store data to be reproduced by the apparatus and an information zone to store information on the data to be reproduced, the information zone includes directories of a video title set (VIDEO_TS) and an audio title set (AUDIO_TS), wherein the AUDIO_TS directory includes information on an audio manager (AMG) having information on audio titles, wherein the data zone includes the audio titles each having audio title set information

(ATSI) followed by a plurality of contiguous audio objects (AOBs), ~ the ATSI includes a plurality of audio stream attributes, each audio stream attribute having an audio coding mode, a first, second or third quantization bit number corresponding to the data to be reproduced, a first, second, third, fourth, fifth or sixth sampling frequency corresponding to the data to be reproduced, and decoding algorithm:

a data receiver to receive the audio data retrieved from said DVD-Audio disk when said DVD-Audio disk is loaded in said apparatus for reproduction, and to receive said video data retrieved from said DVD-Video when said DVD-Video disk is loaded in said apparatus for reproduction;

a controller to generate an audio control signal including the audio coding mode, the indicated one of said first through sixth sampling frequencies, the number of audio channels, and the indicated one of said first through third quantization bit numbers based upon information on the audio data if said Audio_TS has effective data comprising the AMG, the audio titles, and one of the AOBs, and stopping a playing operation of said apparatus if Audio_T does not have said effective data;

a stream parser to separate the video data and audio data output from said data receiver according to a mode control signal from said controller;

a video decoding circuit to decode the video data output from said stream parser in response to said controller controlling a DVD-Video playing mode of said apparatus;

an audio decoder having a plurality of audio decoding circuits to decode the audio data output from said stream parser by selecting a corresponding decoding circuit

according to the audio coding mode, and to multi-channel mix, to sampling-frequency convert, and to requantize the decoded audio signal according to the audio control signal, and to generate an output decoded audio signal." These limitations read on claim 1 of the corresponding patent.

Claim 9 also recites, "an audio output circuit to convert said output decoded audio signal into an analog audio signal" which reads on the limitation "reproducing the audio data from the audio directory according to the control information if the DVD is the DVD-Audio and reproducing the audio data from the audio video directory if the DVD is the DVD-Video" of claim 6 of the corresponding patent.

Claim 9 also recites, "a video output circuit to encode the video data output from said video decoding circuit in NTSC, and to convert the encoded video data into an analog video signal." This limitation is not taught by the corresponding application. However it is old and well known in the art to build a decoder to decode and encode NTSC signal.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use an encoder and decoder that can decode NTSC signal in order to be able to record broadcasted signal on a recording medium and reproduce.

Regarding claim 10, claim 10 recites, "An apparatus as defined in Claim 9, wherein the audio decoder further comprises: a stream selector to select one of a plurality of audio streams which form the audio data according to the audio coding mode

control signal to deliver the selected audio stream to the corresponding one of the plurality of audio decoding circuits; the plurality of audio decoding circuits including

a linear pulse code modulated (PCM) decoding circuit to decode the selected audio stream when said selected audio stream is a linear PCM audio stream, and to sampling frequency convert, multichannel downmix and requantize said decoded linear PCM audio stream according to the audio control signal, and a coding data decoding circuit to decode the selected audio stream when the selected audio stream is a compression coded audio stream by a corresponding extension algorithm, and to sampling frequency convert, multichannel downmix and requantize the decoded compression coded audio stream according to said audio control signal." This claim reads on claim 8 above.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitiku Debelie whose telephone number is (571) 270 1706. The examiner can normally be reached on Mon - Fri 8:00 - 5:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571) 272 7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD
09/12/2007